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THE SOUTHWEST CORRIDOR STUDY AREA

ANALYSIS OF ALTERNATIVE
LAND USE PLANS

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THE SOUTHWEST CORRIDOR STUDY AREA

ANALYSIS OF ALTERNATIVE
LAND USE PLANS

Prepared for

The Southwest Corridor Study Committee
Under Agreement With
Boston Redevelopment Authority

August, 1969

By

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ANALYSIS OF ALTERNATIVE LAND USE PLANS

This analysis contains four major sections. The first section presents background materials some of which relate directly to design impacts and some of which are addressed to the impacts associated with an improved transportation system. This latter point considers the broad implications of better access into and from the corridor area. The second section deals with the four alternative land use plans prepared by the BRA staff -- which are in fact joint development plans confined to the right-of-way -- this section responds directly to each of these four plans.

The third section addresses the full one-by-three mile corridor area with consideration given to the immediate impact Zone A, defined as an area some 250 feet on either side of the right-of-way, and to Zone B, the remainder of the corridor area. Finally, overall corridor development and land use is examined in relation to projections developed in the previously submitted Part A written report.

1. BACKGROUND

Our assignment was to evaluate the differential impacts of an elevated as compared to a depressed freeway design on the Southwest Corridor Study Area. The existence of an improved transportation system has been given therefore and has implicitly been considered under both the elevated and depressed design analysis, as submitted. It is appropriate however, to explicitly identify key impacts that are associated with an improved transportation system.

One such impact relates to commercial activity that is currently located within the corridor. Presently existing commercial centers are located at Dudley Square, Jackson Square, Egleston Square, areas along Washington Street, and areas along



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Centre Street. All of these areas will be affected by the new transportation system. Primarily affected will be the Dudley Square area, Egleston Square and the area along Washington Street where an elevated transit system is currently located. The removal of the transit line from the Washington Street location will decrease the potential of this area for commercial use and will simultaneously increase its potential for residential use especially at medium to high densities. Similarly, moving the Dudley Square station to Roxbury Crossing will decrease the activity at Dudley Square and increase it at Roxbury Crossing. The location of a station at Jackson Square will increase its commercial potential and will draw activity from the current Centre Street commercial firms as well as from the Washington Street firms.

The improved transportation corridor will also affect land values. Our analysis shows in every case reviewed that land values increased as a result of an improved transportation corridor, independent of facility design. Specifically and most common are cases of elevated expressways, where land values in and about the expressway vicinity uniformly increased. In many of these cases land use shifted from residential to commercial or industrial. In cases where land use remained residential it typically shifted to higher densities in extension and as a reflection of its increasing land values.

Analysis of the specific differential effects of an elevated and depressed facility on land values in the Southwest Corridor would require extensive analysis including noise measurements, visibility analysis and community attitudes as well as parcel appraisals. Such an analysis is outside the scope of the present contract. It is our judgment however based on review of the Southwest Corridor area and the broadly comparable experience in similar circumstances that most properties in the immediate impact zone -- that area some 250 feet on either side of the right-of-way -- should show increased values as a result of the improved transportation system and independent of the design of the freeway.

The existing railroad embankment designated as the part of the proposed right-of-way, as a matter of history, has affected land use development in the corridor and especially in the immediate impact zone. Our analysis in the Part A written submission assumes that a barrier would continue to exist between the east and west portions of the corridor when the design of the freeway is elevated. Because the present contract explicitly specified that the differential effects of an elevated as compared to a depressed design be analyzed, the new facilities along the present railroad embankment with its historic and already expressed impact was fully considered as a basic and given factor in our analysis. The depressed design alternative in contrast assumes that the 50-year old embanked railroad right-of-way would be removed. The land use impacts as previously expressed in quantitative terms in the Part A submission takes these points into full account.

The following section sets forth our analysis of the four joint development alternatives for the right-of-way area.

2. RIGHT-OF-WAY ANALYSIS

The four joint development plans for the right-of-way are considered in this section. All four plans contain substantially the same land use mix. The following table shows the approximate percentage distribution of land use for the alignment area for each of the joint development alternatives. The total acreage of land involved in the right-of-way is estimated at 180 acres.

Table 1. PERCENTAGE DISTRIBUTION OF LAND USES FOR THE RIGHT-OF-WAY AREA BY JOINT DEVELOPMENT PLAN ALTERNATIVES

<u>Use Type</u>	Percentage Mix			
	<u>Depressed Design</u>		<u>Elevated Design</u>	
	<u>Industry-Oriented</u>	<u>Housing-Oriented</u>	<u>Industry-Oriented</u>	<u>Housing-Oriented</u>
Housing	5%	30%	0%	5%
Industrial	15	0	20	0
Commercial	35	40	35	45
Open Space	20	15	20	25
Community Facilities	10	5	20	5
Transportation	<u>15</u>	<u>10</u>	<u>15</u>	<u>20</u>
ROW Total	100%	100%	100%	100%

The above table illustrates a similar range of land use types for each of the design alternates. The key differential appears in the Depressed-Housing (D-H) as compared to the Depressed-Industry (D-I) and the Elevated-Industry (E-I). In these cases the housing and industry mix shift with other use "shares" substantially unaffected with the notable exception of community facilities uses in the elevated schemes.

Following is a discussion of key location factors along right-of-way segments. Commercial, industrial and housing uses are highlighted.

- Commercial activity will occur in three segments along the right-of-way under the staff proposals. These include segments 2, 4 and 8. Segment 4 contains Jackson Square and will become a more significant commercial center as a result of the transit station located there. It will attract shoppers from the existing Centre Street and

Washington Street strip developments as well as from Egleston Square. The emphasis at this segment is appropriately commercial in our judgment.

Similarly, at segment 8, we believe because of the improved transportation system, that this area will support substantial new commercial development. This development could relocate that impacted along Washington Street and would service those using the on-off ramps to the freeways as well as the transit station located in Segment 8. Segment 2 contains Roxbury Crossing and can appropriately provide another area emphasizing commercial development. However, due to its odd shape and the facilities that currently exist about it, the northern part of Segment 2 should be utilized to bring together the public housing on the west and the new planned Campus High facility. On the south portion of Segment 2 some modest amount of commercial development would be suitable. Housing located to the southeast should be buffered from the freeway with either additional housing if the freeway is depressed, open space or a community facility.

- The industrial concentrations along the right-of-way are focused at two points: the east sides of Segment 5 and Segment 7. The long, narrow configuration in both of these segments requires that a buffer zone separates existing industry from the housing areas to the west of them. At the present time the railroad embankment effectively separates the industries from the residential areas. If the embankment remains as in an elevated design,

- then it will continue to act as a buffer. If the freeway design is depressed however, open space and screen planting would be used to separate the present industry from the residential neighborhoods.
- Residential areas make up the dominant remaining area along the right-of-way. These can be expected to become less desirable for low density and more desirable for high-density residential in the case of an elevated expressway. If the freeway design is depressed, then lower density housing would offer the possibility of blending with the existing residential areas on both sides of the right-of-way. These observations would ultimately have to be "tested" against economic factors in joint development construction as well as other area development objectives.

Thus far, the right-of-way alternate land use plans have been discussed in terms of corridor development factors and industry, commercial and housing uses in the areas immediately surrounding the right-of-way as well as the scale and configuration of the various segments.

Segment Analysis. In the following paragraphs each segment is analyzed in terms of the four alternative joint development plans for the right-of-way.

Segment 1 -- The land use proposal here is the same for all alternatives.

The open space areas projected for the ROW will enhance the housing and community facility development existing and planned adjacent to this segment.

Segment 2 -- The four alternatives are basically the same. The limited commercial area proposed -- about three acres in each case -- is too small to permit extensive commercial development. The area, based on scale and indicated development potentials would be most suited to convenience activities. This program should be coordinated with possible commercial development in the Campus High project however. The limited housing use designated in the E-H alternative is situated between community facilities on the west and industry on the north and in our judgment should be removed. The more extensive housing designation in Alternative D-H is more appropriate. However, specific attention should be given to the cost of development using air rights as designated in this alternative. The underrights development as proposed in connection with the two elevated alternatives is not clear since underrights development is most typically suited for parking or perhaps a playground purpose.

Segment 3 -- The housing areas designated in the two elevated alternatives are too small to warrant consideration on our opinion. The D-H alternative however provides two one-acre parcels that would permit meaningful housing development in each.

Segment 4 -- We believe this area should serve as the point of commercial emphasis in the northern part of the corridor area. The site contains some eight acres and would permit rather extensive development associated with the limited nearby commercial development. Again, the

underrights development in the elevated alternatives would primarily be parking for the commercial development. The depressed alternatives would permit more extensive development than the elevated. The housing designations in D-H are small and consideration should be given to commercial space at these points as an alternative.

✓ Segment 5 -- The long, narrow shape of this strip precludes substantial development activity unless the design is depressed and covered. Thus, alternative D-H permits a suitable development solution on the south half of the segment. On the north half, the present embankment separates the industry on the east from the housing on the west. If the freeway is depressed, other barriers should be considered. Substantial open space is one possible solution. The underrights industrial development shown on Alternative E-I and similarly, the underrights open space and community facility development on E-H do not appear appropriate except for adjunct parking or open recreation area.

Segment 6 -- Commercial activity here should be limited to neighborhood facilities. The underrights commercial, open space and community facility development in the elevated alternatives again do not appear appropriate except as above noted. The land use scheme represented in D-H fits well into the present texture of the area as compared to the alternative programs. The transit location at this point appears undesirable.

✓ Segment 7 -- The small narrow strip on the west side of this subarea appears to be utilizable only as open space. It would appear too small to develop for housing as illustrated in alternative D-H. The industrial nature of the surrounding area suggests the joint development as proposed

in D-I and E-I. Again, buffering solutions should be implemented in the transition area between industry on the east and the residential area on the west.

Segment 8 -- Commercial activity should be emphasized in this area as in alternative E-H and D-H. Such development could be supported by the traffic associated with a transit station and the freeway off-on ramp. This site could provide the neighborhood and community shopping center as well as tributary and purchasing power to replace facilities impacted on Washington Street when the elevated is removed. Again, the underrights development proposed in E-H and E-I does not appear suitable except as parking.

Segment 9 -- This area contains only five acres in all. Alternative E-I and D-I utilize this acreage for four different uses, as compared to three uses in E-H and two uses in D-H. The housing emphasis alternatives appear to have better land use possibilities, especially the D-H alternative. Since commercial development should be emphasized in Segment 8 to the north, a continued emphasis in this area would be appropriate blending into the school located on the west side and the housing area to the east.

3. CORRIDOR IMPACT ANALYSIS

In this section the differential impact of the proposed transportation right-of-way on the area 250 feet immediately adjacent to both sides of the right-of-way is initially considered. This will be referred to subsequently as Zone A. The area outside this strip comprises the remainder of the corridor and will be referred to subsequently as Zone B. The Zone A impacts are closely related to freeway design while the Zone B impacts are more directly related to growth or decay in the corridor area and will be dealt with more specifically in the subsequent paragraphs in this section of the report.

Corridor Analysis: Zone A

An elevated design can be expected to affect the Zone A existing land use more dramatically than a depressed design. The elevated design would be compatible with Zone A land uses in industrial, some commercial and more dense housing categories as compared to these uses as well as lower density housing alternatives for the depressed solution.

The following table summarizes the existing general land characteristics now found in the Zone A strips on either side of the right-of-way:

Table 2 . EXISTING GENERAL LAND USE DISTRIBUTION, ZONE A

<u>Use</u>	<u>Percent</u>
Housing	55%
Industrial	20
Commercial	5
Open Space	5
Community Facilities	10
Vacant	5
Total	<u>100%</u>

The combined industrial and commercial use totals some 25 percent for the Zone A land area at present as seen above. This present use in overall terms would be benefited by an elevated expressway as visibility to these sites would enhance their value. However a depressed design would be most compatible with the 75 percent of the land area in Zone A now utilized for housing and housing-related purposes. Put another way, since a railway embankment currently divides the area, the immediate impact zone could be made more suitable for these existing residential purposes by removing the embankment and depressing the transportation facility.

In both the elevated and depressed cases, land values in Zone A could be expected to increase, as discussed earlier in overall terms. The principal basis for these increases would be the anticipation of higher value use and density development opportunities potentially available in the Zone A areas. These value gains imply land use changes however, in the adjacent areas, as distinct from those now existing in the area by and large.

The analysis below of Zone A refers to each of the nine designated segments as depicted on the four alternative joint development plans. Zone A refers solely to the area and uses within approximately 250 feet of either side of the right-of-way, divided into nine subareas corresponding to the ROW segments shown.

Segment A-1 -- Housing and community facilities -- based on the Campus High renewal plan -- are the projected land uses for the immediate impact zone. Both of these uses would be substantially enhanced by the depressed design. They could be very negatively affected by elevated solutions depending on the transportation facility design as well as final project area layout.

Segment A-2 -- Zone A contains housing, industry, and community facilities. Since an elevated expressway would produce increased visibility potential for the industrial locations, only that land use would be more enhanced by an elevated design as compared to the depressed design for the other uses in the area.

Segment A-3 -- This segment is now bordered almost completely by housing. Thus, a depressed design would be the better solution for this segment of the right-of-way, in terms of the existing use patterns.

Segment A-4 -- Some two-thirds of Zone A, associated with this segment, now contains housing with limited industry and open space areas. The proximity of this area to Segment A-3 suggests that a depressed solution would be more appropriate here. With an interchange planned at this point, the potential for commercial development within the alignment and nearby would be enhanced, even apart from the specific alignment design.

Segment A-5 -- Except for a strip of industrial development to the north of the alignment within Zone A, the remainder of the area is residential. Again, the extensive residential uses here and on adjacent segments, suggests a depressed design as more appropriate in relation to existing uses. Such a design would, in addition, help to fortify the commercial development in Segment A-4.

Segment A-6 -- Zone A contains mixed land uses. However, the predominant use is residential. Commercial land uses are present here however, and they could be enhanced by an elevated solution.

Segment A-7 -- The predominant land use in this segment is for industrial purposes. Specifically, all of Zone A to the east of the right-of-way is in industrial use and most of Zone A to the west is in residential use. This mixed use has been made feasible as a result of the present embankment that exists. For Zone A on both sides of the right-of-way to continue effectively in their present use would require a visible barrier -- similar to the elevated freeway design or an extensive, screened open space area.

Segment A-8 -- Zone A is quite heterogeneous with substantial areas of housing to the west, industry to the northeast and community facilities at scattered locations. Since an interchange is planned at this location, regardless of alignment design, commercial and industrial use should be emphasized. This emphasis in turn would lead to the elevated solution because of the visibility factor.

Segment A-9 -- Existing land use in Zone A is primarily for housing purposes. A school is in the planning stages for a location to the west of the alignment. The residential nature of Zone A would call for a depressed design solution based on the points previously set forth.

Corridor Analysis: Zone B

For purposes of this report as a result of the four alternative joint development plans confined to the right-of-way the corridor has been divided in three zones.

In brief recap these are:

- The right-of-way area containing the projected transportation facilities.
- The immediate impact Zone A, located generally within a line 250 feet on either side of the right-of-way, and
- The remainder of the one by three mile corridor area, designated Zone B.

This section of the report deals with the remaining or Zone B portions of the corridor and the impact of an elevated as compared to depressed right-of-way.

The Zone B considerations are essentially related to the overall future of the corridor area. The prospects for development of the area have been dimensioned in terms of population, employment and land uses in a three-level range discussed in the earlier Part A report and will be more fully discussed in the following section.

In overall terms, if a stagnant to declining situation would continue to typify the future of the corridor -- based on all the factors previously indicated -- then Zone B land can be expected to continue to deteriorate with the area becoming a less desirable place to live, work and shop. If in contrast, past stagnation were to be arrested and the area's development stabilized, then, replacement and rehabilitation will need to occur at a pace to maintain the quantity and quality of present housing, industry and commercial activity. Finally, if the corridor area were to participate in

overall metropolitan growth patterns -- a result that could be expected if the transportation facility were depressed and were other programs previously discussed to function at highly effective levels -- then commercial activity would accelerate so that Dudley Square would become a more viable area together with the additional commercial facilities proposed for the Campus High area and the Jackson Crossing, Forest Hills and Centre Street strip could potentially expand and upgrade. Further, the demand for industrial land can be expected to increase, potentially beyond the availability of suitable vacant area within the corridor as presently defined. Finally, housing needs can be expected to increase in response to household gains requiring utilization of vacant land and areas near the right-of-way as well as elsewhere in the corridor area, for residential purposes.

The specific interrelationship of the four joint development plans submitted by the BRA and the projected situations for the corridor are discussed in further detail subsequently.

The following tabulation outlines the present and future development factors by key subareas in the corridor. This outline underscores the wide range of public program activity that is currently planned and is already operation in the corridor

CORRIDOR REDEVELOPMENT FACTORS

<u>Corridor Sub Area</u>	<u>Development Activity</u>	<u>Comments</u>
Northeastern - (The four quadrants - N-S of proposed interloop & E-W of Railroad)	Current:	
	1. Renewal Activity	1. Two Renewal Areas:
	2. Public Housing	2. Presently 2200 Dwelling units of Public Housing exist, built in the 40's and early 50's. No additional is proposed.
	3. 221 D-3	3. 700 dwelling units of 221 D-3 housing are proposed.
	4. Campus High School, in Model City subarea 2	4. A 26 acre site to be open 1972 or 1973; includes 400 new housing units.
	Future:	
	1. Most of the area is already committed or planned	
	2. Open space and Playgrounds over or under freeway	
Roxbury Crossing - Jackson Square (South to Boylston St.)	Current:	
	1. Renewal GMRP areas	1. Parker Hill - Fenway & Jamaica Plain GMRP and Washington Park Renewal
	2. Housing	2.
	a) Public	a) 1150 dwelling units built in 1942 & 1954 with 64 Elderly units built in 1962.
	b) 221 D-3	b) 650 units recently occupied with 140 proposed.
c) "infill"	c) a number of vacant lots with 80 dwelling units proposed for 1969.	
3. Model City	3. Sub-areas 1&2 make up most of the area east of the proposed freeway.	

CORRIDOR REDEVELOPMENT FACTORS (Continued)

<u>Corridor Sub-Area</u>	<u>Development Activity</u>	<u>Comments</u>
	4. Code Enforcement Area	4. The Southern section west of the proposed freeway lies in the Jamaica Plain employment area.
	✓ 5. Industrial	5. Sites exist primarily along the railroad. Two large sites exist in the northeastern corridor of this section.
	6. Commercial	6. Two large commercial centers-Egleston Square and Dudley Square are near containing about 1,000,000 square feet of commercial space. (About one-half of commercial space in the study area)
	7. Residential	7. Many older poor condition residences concentrated east of the right-of-way. Many multi-family units are located in the area including 1150 public housing units and 650 units built under 221 D-3 financing.

Future:

1. A complete off-on ramp will provide easy access to and from this section. Light industry along the right-of-way with wholesale establishments.
2. Removing the Washington Street elevated will hurt the commercial establishments, especially at Egleston Square and Dudley Station Jackson Square will become a focus for transit passenger trade as will Roxbury Crossing. Commercial sites at these new stations will have a ready made demand for their product. The remaining sites along

CORRIDOR REDEVELOPMENT FACTORS

Corridor Sub-Area

Development Activity

Comments

Washington Street should be improved or demolished as Model Cities and Washington Park Renewal Programs indicate.

3. A number of residential sites are located near the proposed freeway. Development possibilities to improve the residential atmosphere should be located over or under the freeway.

Forest Hills area
to Arborway

Current:

1. GNRP - code enforcement Model City area

1. Jamaica Plain GNRP, the Jamaica Plain Improvement area and Model City subarea.

2. Housing
a)

2.

a) 132 dwelling units built in 1953 and 44 elderly units built in 1962.

b) 108 dwelling east of the proposed freeway.

c) a limited number of sites (9) exist in this section.

3. Commercial Areas

3. Limited primarily to scattered sites Washington Street and a concentrated site on Centre Street. The Centre Street Site.

- ✓ 4. Industrial Areas

4. Large sites near arborway and Washington Street and the Railroad. Oil companies and a MBTA are the major tenants.

5. Residential

5. This area contains primarily single and two family detached dwellings. Most were built prior to 1940.

CORRIDOR REDEVELOPMENT FACTORS (Continued)

Corridor Sub-Area

Development Activity

Comments

Future:

1. The right-of-way will remove a number of existing industrial sites, especially the oil companies. Since an on-off ramp exists at the Arborway this section will have ready access to the metro area.
2. The removal of the Washington Street elevated will present an opportunity to re-develop the area into limited commercial and residential use.
3. Since the current major land use in the section is residential this should be re-enforced by the freeway. Care should be given to the freeway design to permit continued residential use.

Walk Hill area
(Arborway to walk
Hill Street)

Current:

1. Housing
 - a) Public
 1. a) Presently there are 288 units that were built in 1951. 140 elderly units are proposed for future completion.
 - b) No sites are in or proposed for the area, however, 138 units exist just south of the area.
 - c) A limited number of possible sites exist. 16 dwelling units are proposed for the area.
 - b) 221 D-3
 - c) "Infill"
2. Commercial Areas
 2. Limited activity in the area, the residents are drawn toward Roslindale to shop.
3. Residential Areas
 4. Except for the public housing, most residences are single or two family units. The building condition is generally good to fair.

CORRIDOR REDEVELOPMENT FACTORS (Continued)

Corridor Sub-Area

Development Activity

Comments

Future:

1. The off-on ramp of Forest Hills will be the nearest access to the freeway. Limited industrial potential exist for this area.
2. The proposed Walk Hill transit station will concentrate potential shoppers in that area -- and with the removal of the Washington Sfreet elevated, this area should become more commercially oriented.
3. The area is primarily residential, thus design considerations should strengthen this characteristic of the area.

4. Overall Corridor Development and Land Use

In the previous materials overall corridor considerations were discussed. The following explicitly considers the relationship between right-of-way design for the proposed transportation facilities and projections of employment and population in the corridor as previously prepared.

Analysis in the Part A written report set forth three projected economic development situations for the Southwest Corridor Area. These situations, designated A - Stagnant; B - Stable; and C - Metroshare, provided a quantitative framework for projecting corridor land use requirements associated with the elevated versus the depressed designs. As developed in the Part A submission, the chance of Situation A occurring was estimated at 20 percent; the chance of Situation B, 60 percent; and the chance of Situation C, 20 percent.

An extensive range of programs and facilities are currently operating or are projected for the area including model cities-anti-poverty; educational; urban renewal-housing code enforcement; public housing and special assistance programs; recreation, health and other municipal services; as well as the freeway and transit improvements. If these programs are effective and are fully funded, the probabilities associated with each of these development alternatives can be expected to shift somewhat. These anticipations are estimated as shown in the following table.

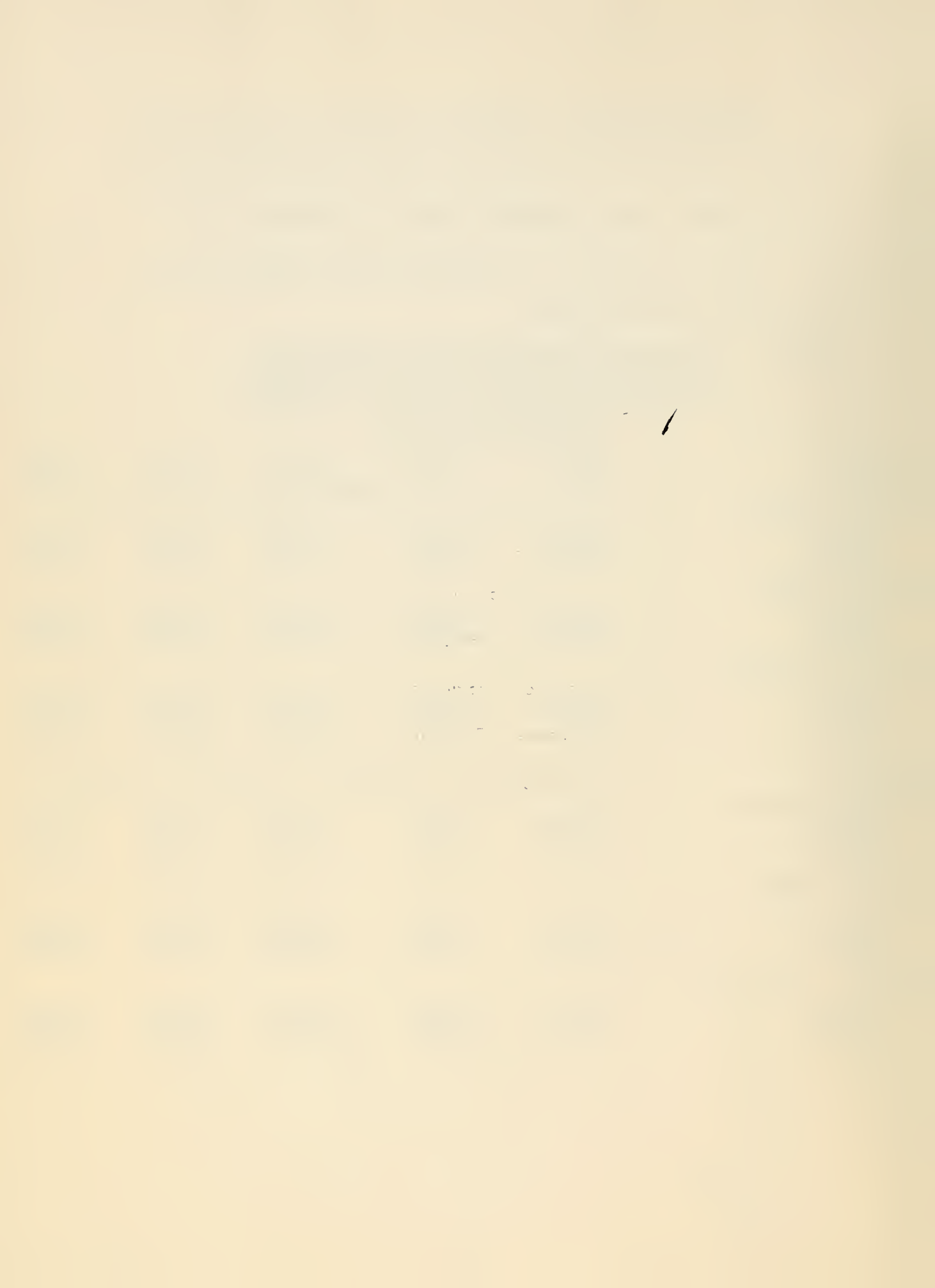
Table 3 . DEVELOPMENT PROBABILITY ESTIMATES ELEVATED AND DEPRESSED CORRIDOR DESIGNS

<u>Development Situations</u>	<u>Basic Alternatives</u>	<u>Elevated Corridor</u>	<u>Depressed Corridor</u>
A - Stagnant	20%	30%	10%
B - Stable	60%	60%	60%
C - Metroshare	<u>20%</u>	<u>10%</u>	<u>30%</u>
Total	100%	100%	100%

Population and employment projections were made in the Part A written submission for each of the development situations and for both the depressed and elevated designs. These are contained in Table 4 as shown below. This table illustrates the sensitivity of the population forecasts to design differences in contrast to employment estimates.

Table 4 . POPULATION AND EMPLOYMENT ESTIMATES FOR ELEVATED AND DEPRESSED DESIGNS, SOUTHWEST

<u>Population:</u>	<u>CORRIDOR STUDY AREA</u>				
	<u>1968</u>	<u>1972</u>	<u>1975</u>	<u>1980</u>	<u>1990</u>
	Persons				
Situation A: Stagnant					
Elevated	80,000	76,400	74,900	72,400	69,900
Depressed	80,000	78,800	77,200	74,700	72,200
Situation B: Stable					
Elevated	80,000	79,200	78,600	77,600	76,600
Depressed	80,000	80,000	80,000	80,000	80,000
Situation C: MetroShare					
Elevated	80,000	80,200	82,900	85,000	89,000
Depressed	80,000	81,000	83,500	86,000	91,000
<u>Employment:</u>	Jobs				
Situation A: Stagnant					
Elevated	19,000	18,000	19,000	19,000	19,000
Depressed	19,000	18,000	19,000	19,500	20,500
Situation B: Stable					
Elevated	19,000	18,000	19,000	19,500	21,000
Depressed	19,000	18,000	19,000	20,000	22,000
Situation C: Metro Share					
Elevated	19,000	20,300	21,500	23,370	27,230
Depressed	19,000	20,500	21,700	23,600	27,500



Projections of the possibilities facing the corridor are fundamental to appraising the joint development alternative plans. The Stagnant Situation, our analysis shows, indicates a 90 acre decline in residential demand, a 30 acre decline in commercial demand and no net change in industrial demand. The Stable Situation projects the following acreage demands on land by 1990: no net change in residential land requirements, a 20 acre reduction in commercial land requirements and a 40 acre increase in industrial land requirements. These data were fully tabulated in the Part A submission. If the Stable Situation B prevailed, the demand for industrial land area now deferred due to lack of available land within it. This anticipation is represented by a "spillover" land requirement of 50 acres.

Should the area share in the metro growth pattern as projected in Situation C, the pressures on land use between the present and 1990 would be as follows: residential acreage requirements -- 165 acres; commercial area requirements -- 10 acres; and industrial area requirements -- 70 acres. The "spillover" land requirement in this case would be 275 acres. To reiterate, the "spillover" acreage estimate is a measure of excess demand pressures on available land generated by the projected residential, commercial and industrial activity.

In the following pages each of the alternative prospects for the area is analyzed with a tabular summary outlining land use potentials for each corridor segment and in relation to each of the four joint development plans prepared by BRA staff.

Situation A Projection

- Open or vacant land can generally be expected to remain unutilized.
- Commercial - Shift from Dudley toward Roxbury Crossing and Jackson Street; and from Washington Street toward Jackson. No additional commercial land needed.
- Housing - Replacements can occur on existing vacant land so that the 283 families in the right of way needing replacement housing can be accommodated elsewhere in the corridor.
- Industrial - limited existing industrial acreage will be acquired as part of the right-of-way taking near Forest Hill. This could be replaced near Forest Hill or at other locations where vacant land is available.

SITUATION A

Corridor Segment	Elevated		Depressed	
	Housing	Industry	Housing	Industry
1	Between Mission Hill Projects and Campus Hi--Open space development to tie these together possibly to create evening and weekend community facilities at Campus Hi for use by Mission Hill residents and residents in associated housing complex at Campus Hi -- depressed facility would augment this arrangement.			
2 Roxbury	No housing needs	No industrial needs -- access at this point make it a desirable industrial and commercial site - attract commercial firms from Dudley.	No housing needs	No industrial needs - access makes for good commercial & industrial site - attract commercial firms from Dudley area to serve new commuter pattern.
3	No housing needs	No housing needs	No housing needs -- Ideal housing site	No housing needs
4 Jackson	Increased pedestrian traffic and ready on-off access to Freeway makes this a logical industrial-commercial area.	This plan shows desirable use.	Housing in this area is not practical -- no demand in any case.	This plan shows desirable use.
5	The open space and community use is practical -- open space against existing industry is questionable.	Good location for industry if needed -- no needs indicated	Location for transition area on southern portion of area -- however no housing needs	Adjacent to other industries -- no need indicated
6 Green St.	Existing nearby uses in housing and open space indicates additional housing, open space and community facilities as best use -- under Situation A no demand for any of these			
	Transit station creates need for limited commercial		Transit station creates need for limited commercial	

Situation A (Cont'd.)

Corridor Segment	Elevated		Depressed	
	Housing	Industry	Housing	Industry
7 McBride Williams	Use for industry, buffer the west side where residences currently exist.		Low building for industrial use on west side with open space buffer for housing on west -- no need in Situation A for either	
8 Forest Hill	Ideal site for industrial commercial development due to access by both transit and freeway. Possible replacement need for industry		No housing or commercial need	Replace industrial re-location
9	Good access via transit and freeway --- near ORC school - commercial use is possible			
	Add possible wedge of industrial -- keep open space between housing and freeway	Appropriate use if need exists	No housing need	Good use if industrial need and adequate open space

Situation B Projection

- Commercial - same as Situation A
- Housing - same as Situation A
- Industrial - an additional 40 acres would be needed to meet projected needs



SITUATION B

Corridor Segment	Elevated		Depressed	
	Housing	Industry	Housing	Industry
1	Between Mission Hill Projects and Campus Hi--Open space development to tie these together possibly to create evening and weekend community facilities at Campus Hi for use by Mission Hill residents and residents in associated housing complex at Campus Hi -- depressed facility would augment this arrangement.			
2 Roxbury	Activity associated with transit station includes limited commercial -- with some movement from Dudley area to Roxbury.			
	No housing needs		No housing needs	
3	No housing needs	No housing needs	Could serve as link between communities on east and west sides of freeway.	
4 Jackson	With transit and freeway access this area lends itself to commercial and industrial development.			
	No housing needs	Depending on station location --Northwest wedge used for light industrial purposes	No housing needs	
5	Since no housing needs -- could use for industrial purposes especially on east side.		Appropriate for housing but none needed	This good freeway access makes this area ideal for industrial purposes -- also location of present industry
6 Green St.	Existing nearby use in housing and open space indicates additional housing, open space and community facilities as best use -- under Situation B no demand for any of these			
	Transit station creates need for limited commercial			Transit station creates need for limited commercial

Situation B (Cont'd.)

Corridor Segment	Elevated		Depressed	
	Housing	Industry	Housing	Industry
7 McBride Williams	Only open space	Location of existing industries make east side an appropriate industrial site	No housing needs	East side of freeway for light industry with low buildings
8 Forest Hills		Ideal site for industrial commercial development due to Ideal location for industry	access by both transit and freeway. No housing or commercial need	Good industrial location with access to freeway
9	The absence of a transit station lessens the need for commercial space	Transit station activity and ready access to freeway suitable for commercial and industrial use	No housing needs and in absence of transit station limited commercial for ORC	Transit and freeway activity create commercial and industrial use and ORC commercial needs

Situation C Projection

- In this case the economy of the Corridor area would be rising at the metropolitan Boston rate and substantial pressure on available land would be felt by 1990.
- Commercial:
 - Potential for substantial additional activity requiring between 670,000 and 825,000 square feet of commercial space.
 - Main activity nodes would be at Roxbury crossing, Jackson station, and Forest Hills.
 - Roxbury would tend to attract firms from Dudley Square as well as new establishments to meet additional demand.
- Housing:
 - An additional 2,810 units to 3,390 units would be required to meet population growth.
 - Need can be met through more intensive use of land. However, since the SW corridor is presently lower density residential, special emphasis to maintain its environment and character should be considered.
 - Washington Street could offer conversion sites for higher density as well as retaining some neighborhood commercial sites.
- Industrial:
 - Between 1.6 and 2.0 million square feet of additional floor space will be needed.
 - Location near Freeway entrance and exits and high visibility sites will be prime for this purpose.

SITUATION C

Corridor Segment	Elevated		Depressed	
	Housing	Industry	Housing	Industry
1	Open space is good use although air rights for industrial use might be feasible.		As a transition area between Mission Hill and Campus Hi possible commercial development near cross-overs.	
2 Roxbury	The small housing area is all that is practical -- heavy pressures for new retail services will lead to substantial commercial	This area could be effectively used only for limited commercial purposes--considering moving community facilities to North end	The community facility on the north could service the Campus Hi area as well as the Mission Hill complex	Move community facilities and use remainder for commercial
3	With the great pressure for residential land the D-H, D-I, and E-H are most appropriate with the depressed facility lending itself best to residential development.			
4 Jackson	The heavy need for land will restrict use for community facilities. The transit station will provide the basis for a substantial commercial complex. The freeway access will create additional commercial pressures along with industrial pressures for sites with visibility from the freeway and easy access to it.			
5	The allocation to mostly open space is impractical given the increased population pressures	The north half is used well between industry and open space -- on the south additional residential use is required	Generally good use with additional light industry on the east and north end	Extend industries on east to north and add residential to southern area
6 Green St.	The commercial area associated with transit station is adequate -- pressure for residential and industrial Green St. will limit open space		The substantial residential use is consistent with the projected land pressures	The northern area changed to residential use. Possible air rights development

Situation C (Continued)

Corridor Segments	Elevated		Depressed	
	Housing	Industry	Housing	Industry
7 McBride Williams	(Develop industry on East) (Transit best at Green Street)		Transit at Green Street leaves east side available for industrial development with housing in segment 6.	
8 Forest Hills	The emphasis here should be to have industry between Washington Street and right of way with westward transition to housing certainly should be here			
9	Too much commercial in light of Forest Hill	Good use of site -- possible air rights for industry	Generally good use	Good use of site -- possible air rights for industry



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Gladstone, Robert & Assoc.

The Southwest Corridor Study Area.
Analysis of Alternative Land Use
Plans. ns.

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